

In Memoriam

Yvonne Dold-Samplonius (20 May 1937–16 June 2014)

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Yvonne Samplonius was born on May 20, 1937, in Haarlem (Netherlands), as the oldest daughter to Elisabeth Bol and pharmacist Jacob Samplonius. She attended the Stedelijk Gymnasium in Haarlem (1949–51), the Barlaeus Gymnasium in Amsterdam (1951–55) and then studied mathematics and Classical Arabic at the University of Amsterdam, where she received her M.Sc. in mathematics in 1966. During an internship at the Mathematisches Forschungsinstitut in Oberwolfach she met the algebraic topologist Albrecht Dold (1928–2011) who had become a full professor in Heidelberg in 1963; they married in 1965, and the couple moved to Neckargemünd near Heidelberg. Although a Ph.D. student of the Dutch historian of mathematics Evert Marie Bruins (1909–1990), Dold-Samplonius received much of her training in the history of mathematics from John Murdoch (1927–2010) at Harvard, and from Matthias Schramm (1930–2005) at Tübingen University. She spent the 1966–1967 academic year at Harvard.

Dold-Samplonius's early research focused on Islamic geometry and on ancient Greek geometrical treatises which only survive in medieval Arabic translation. Her first paper, on a medieval Islamic construction of the regular heptagon, appeared when she was still a M.Sc. student (see [1963] in the bibliography below). Together with Heinrich Hermelink she edited a treatise on tangent circles attributed to Archimedes [1975]. Her Ph.D. thesis [1977] was about another such treatise by a then otherwise unknown Greek geometer

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“Aqāṭun”. She was also interested in Islamic algebra and in early modern mathematics: in [1968], for example, she prepared a new catalogue of the 17th and 18th century manuscripts of the Mathematical Society in Amsterdam that largely superseded the 1907 catalogue of books and manuscripts by G. Mannoury. She enjoyed a close friendship with B.L. van der Waerden (1903–1996), and published an interview with him [1994] as well as his eulogy [1997].

Most of Dold-Samplonius’s work after 1992 is devoted to applications of mathematics to the architecture of Islamic buildings. She started by editing and translating the relevant sections on arches, domes and muqarnas (decorative three-dimensional stalactite constructions) in the *Key to Arithmetic* of the 15th century mathematician Jamshīd Kāshānī (or al-Kāshī). She continued by studying the actual monuments and their design during her travels to the Middle East. This work resulted not only in the publication of scholarly articles, but also in the production of a popular video [1995-6], based on the idea that al-Kāshī should receive a virtual tomb with a cupola designed according to his own instructions. The video was produced at the Heidelberg IWR (Interdisciplinary Center for Scientific Computing), an institution to which Dold-Samplonius had been associated since the early 1990s. In 2000 she was named a honorary citizen by the city of Kashan in Iran, where al-Kāshī was born. In the same year, she organized, together with Joe Dauben, Menso Folkerts and Benno van Dalen, a conference in Bellagio (Italy) on 2000 years of transmission of mathematical ideas (see [2002]). She was elected corresponding member (in 2002) and effective member (in 2007) of the International Academy of History of Science. In [2005] she published another video [2005b] together with her colleagues and her Ph.D. student Silvia Harmsen, based on Harmsen’s work on the reconstruction of a three-dimensional muqarnas from its two-dimensional design. Persian versions of the two videos appeared in cooperation with the House of Mathematics in Isfahan.

Research in medieval Islamic science and architecture was only one aspect of the academic life of Yvonne Dold. She travelled to mathematics conferences all over the world together with her husband Albrecht, and maintained close relationships to the Mathematisches Forschungsinstitut in Oberwolfach. She assisted the central university authorities in Heidelberg with the organization of commemorative activities and conferences, and was active in the musical life of the city. Colleagues from all walks of academic life were invited to the beautiful home on Türkenlouisweg 14 and treated to exquisite dinners (both Albrecht and Yvonne were great cooks). In the closing years of her life, much of her energy was taken up in caring for Albrecht, whose health had deteriorated.

Yvonne Dold died in a hospital in Heidelberg on June 16, 2014. Three weeks before her death, my wife and I stayed with her and although she was physically very weak, her mind (and her hospitality) were as strong as ever. We will remember her as a scholar and popularizer of the history of mathematics and as a friend.

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